

5

REMARKS

This reply is fully responsive to the Office Action dated October 6, 2008, and is filed within three (3) months following the mailing date of the Office Action. The Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of the number
10 of months necessary to make this response timely filed. The method of payment and fees for petition fee due in connection therewith is enclosed if required.

Objection/Rejection Summary

This application has been carefully reviewed in light of the Office Action of October 6,
15 2008, wherein:

- A. Claim 1 was rejected under 35 U.S.C. 102(b) as being anticipated by Nagata et al. (U.S. Patent No. 4,871,440; hereinafter referred to as the Nagata patent);
- B. Claim 1 was rejected under 35 U.S.C. 102(b) as being anticipated by Matson
20 (U.S. Patent No. 4,404,065; hereinafter referred to as the Matson patent);
- C. Claims 2, 3, and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over the Nagata patent in view of Weetall (U.S. Patent No. 5,066,372; hereinafter referred to as the Weetall patent);
- D. Claims 4-9, 22, and 24-27 were rejected under 35 U.S.C. 103(a) as being
25 unpatentable over the Nagata patent in view of the Weetall patent as applied to Claims 2, 3, and 21, and further in view of Liu (U.S. Patent No. 4,655,880; hereinafter referred to as the Liu patent) and Watanabe (U.S. Patent No. 4,647,362; hereinafter referred to as the Watanabe patent);
- E. Claims 10 and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable
30 over the Nagata patent in view of the Weetall patent, the Liu patent, and the Watanabe patent as applied to Claims 4-9, 22, and 24-27, and further in view of Maley et al. (U.S. Patent No. 5,494,562; hereinafter referred to as the Maley patent);
- F. Claims 11, 12, 20, and 28 were rejected under 35 U.S.C. 103(a) as being
35 unpatentable over the Nagata patent in view of the Weetall patent, the Liu patent,

5 the Watanabe patent, and the Maley patent as applied to Claim 10, and further in view of Mansouri et al. (U.S. Patent No. 6,652,720; hereinafter referred to as the Mansouri patent);

G. Claims 13-17 and 29-33 were rejected under 35 U.S.C. 103(a) as being unpatentable over the Nagata patent in view of the Weetall patent, the Liu patent,
10 the Watanabe patent, the Maley patent, and the Mansouri patent as applied to Claims 11, 12, 20, and 28, and further in view of Leader et al. (U.S. Patent No. 5,336,388; hereinafter referred to as the Leader patent), Zelin (U.S. Patent No. 5,821,399; hereinafter referred to as the Zelin patent), Derwent abstract of Furusawa et al (JP 10-48177 A; hereinafter referred to as the Furusawa reference),
15 and the JPO abstract of Miyashita et al. (JP 2000-19146 A; hereinafter referred to as the Miyashita reference);

H. Claims 18 and 34 were rejected under 35 U.S.C. 103(a) as being unpatentable over the Nagata patent in view of the Weehall patent, the Liu patent, the Watanabe patent, the Maley patent, the Mansouri patent, the Leader patent, the
20 Zelin patent, the Furusawa reference, and the Miyashita reference as applied to Claim 17, and further in view of Moussy et al. (U.S. Patent No. 4,404,065; hereinafter referred to as the Moussy patent);

I. Claims 2, 3, and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over the Matson patent;

J. Claims 4-6 and 22-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over the Matson patent as applied to Claims 2, 3, and 21, and further in view of the Liu patent, and the Watanabe patent; and

K. Claims 1-34 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

5

Claim Rejections under 35 U.S.C. §102

A. Claim 1 was rejected under 35 U.S.C. 102(b) as being anticipated by the Nagata patent.

10 **Claim 1**

The Examiner rejected Claim 1 as being anticipated by the Nagata patent. The Applicant directs the Examiner to the currently amended Claim 1 which has been amended to include the following limitations, "...wherein the first auxiliary electrode from the first electrode set is connected with a second auxiliary electrode from a second electrode set;
15 and wherein the first and second auxiliary electrodes are connected with a common ground."

In order to establish a *prima facie* case of anticipation, the Examiner must set forth an argument that provides (1) a single reference (2) that teaches or enables (3) each of the
20 claimed elements (as arranged in the claim) (4) either expressly or inherently and (5) as interpreted by one of ordinary skill in the art. All of these factors must be present, or a case of anticipation is not met. Thus, "[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." *W.L. Gore & Associates v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983).

25

With the currently amended Claim 1 taken into consideration, the Applicant asserts that the cited prior art does not teach each of the claimed limitations. More specifically and as stated by the Examiner, the Nagata patent does not teach a first auxiliary electrode from a first electrode set connected with a second auxiliary electrode from a second
30 electrode set. Note that this limitation was originally presented in Claims 10 and 19. As such, please see the response below regarding Claims 10 and 19 for specific comments as directed to the new limitations and the cited prior art.

Therefore, because the Nagata patent does not teach each of the claimed elements, the
35 Applicant believes that Claim 1 is in allowable condition. Thus, the Applicant

5 respectfully requests that the Examiner withdraw the rejection of Claim 1 under 35 U.S.C. §102 and provide for timely allowance of all pending claims.

B. Claim 1 was rejected under 35 U.S.C. 102(b) as being anticipated by the Matson patent.

10

Claim 1

The Examiner rejected Claim 1 as being anticipated by the Matson patent. The Applicant directs the Examiner to the currently amended Claim 1 which has been amended to include the following limitations, "...wherein the first auxiliary electrode from the first
15 electrode set is connected with a second auxiliary electrode from a second electrode set;
and wherein the first and second auxiliary electrodes are connected with a common
ground."

In order to establish a *prima facie* case of anticipation, the Examiner must set forth an
20 argument that provides (1) a single reference (2) that teaches or enables (3) each of the claimed elements (as arranged in the claim) (4) either expressly or inherently and (5) as interpreted by one of ordinary skill in the art. All of these factors must be present, or a case of anticipation is not met. Thus, "[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." *W.L. Gore &*
25 *Associates v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983).

With the currently amended Claim 1 taken into consideration, the Applicant asserts that the cited prior art does not teach each of the claimed limitations. More specifically, the Matson patent does not teach a first auxiliary electrode from a first electrode set
30 connected with a second auxiliary electrode from a second electrode set. Note that this limitation was originally presented in Claims 10 and 19. As such, please see the response below regarding Claims 10 and 19 for specific comments as directed to the new limitations and the cited prior art.

5 Therefore, because the Matson patent does not teach each of the claimed elements, the Applicant believes that Claim 1 is in allowable condition. Thus, the Applicant respectfully requests that the Examiner withdraw the rejection of Claim 1 under 35 U.S.C. §102 and provide for timely allowance of all pending claims.

10 **Claim Rejections under 35 U.S.C. §103**

C. Claims 2, 3, and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over the Nagata patent in view of the Weetall patent.

15 **Claims 2, 3, and 21**

Regarding Claims 2, 3, and 21, the Applicant directs the Examiner to the currently amended independent Claim 1. As noted above, the Applicant believes that Claim 1, as amended, is in allowable condition. Since Claims 2, 3, and 21 depend from Claim 1, they incorporate all of the limitations of their respective independent claim, Claim 1, and therefore, Claims 2, 3, and 21 are patentable for at least the same reasons given with respect to their respective independent claims. Thus, the Applicant respectfully requests that the Examiner withdraw the rejection of Claims 2, 3, and 21 under 35 U.S.C. §103 and provide for timely allowance of the pending claims.

25 **D. Claims 4-9, 22, and 24-27 were rejected under 35 U.S.C. 103(a) as being unpatentable over the Nagata patent in view of the Weetall patent as applied to Claims 2, 3, and 21, and further in view of the Liu patent and the Watanabe patent.**

30 **Claims 4-9, 22, and 24-27**

Regarding Claims 4-9, 22, and 24-27, the Applicant directs the Examiner to the currently amended independent Claim 1. As noted above, the Applicant believes that Claim 1, as amended, is in allowable condition. Since Claims 4-9, 22, and 24-27 depend from Claim 1, they incorporate all of the limitations of their respective independent claim, Claim 1, and therefore, Claims 4-9, 22, and 24-27 are patentable for at least the same reasons

5 given with respect to their respective independent claims. Thus, the Applicant respectfully requests that the Examiner withdraw the rejection of Claims 4-9, 22, and 24-27 under 35 U.S.C. §103 and provide for timely allowance of the pending claims.

E. Claims 10 and 19 were rejected under 35 U.S.C. 103(a) as being
10 **unpatentable over the Nagata patent in view of the Weetall patent, the Liu patent, and the Watanabe patent as applied to Claims 4-9, 22, and 24-27, and further in view of the Maley patent.**

Claims 10 and 19

15 The Examiner rejected Claims 10 and 19 as being unpatentable over the Nagata patent in view of the Weetall patent, the Liu patent, the Watanabe patent, and the Maley patent. The Applicants respectfully point out that establishing a *prima facie* case of obviousness requires: (A) determining the scope and contents of the prior art; (B) ascertaining the differences between the prior art and the claims in issue; (C) resolving the level of
20 ordinary skill in the pertinent art; and (D) evaluating evidence of secondary considerations. *See Graham v. John Deere*, 383 U.S. 1, 148 USPQ 459 (1966). Proper analysis of obviousness is whether the claimed invention would have been obvious to one of ordinary skill in the art after consideration of all the facts. 35 U.S.C. 103(a). Recently, the Supreme Court stated that “[R]ejections on obviousness cannot be sustained
25 by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *See KSR Intern. Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (2007) quoting *In re Kahn*, 441 F. 3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006).

30 The rationale to support a conclusion that the claim would have been obvious is that “a person of ordinary skill in the art would have been motivated to combine the prior art to achieve the claimed invention and that there would have been a reasonable expectation of success.” *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F. 3d 1356, 1360, 80 USPQ2d 1641, 1645 (Fed. Cir. 2006).

35

5 Additionally, in order to establish a *prima facie* case of obviousness of a claimed invention, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

10 The Applicant respectfully directs the Examiner to Claims 10 and 19 which have been cancelled. However, the limitations of Claims 10 and 19 have been incorporated into the currently amended Claim 1, as the Applicant believes that the Examiner has misinterpreted the cited prior art. Specifically, the Applicant believes the limitation, “the first auxiliary electrode from the first electrode set is connected with a second auxiliary electrode from a second electrode set” has been misinterpreted as being taught by the
15 Maley patent.

20 The Examiner stated that the Nagata patent as modified by the Weetall patent, the Liu patent, and the Watanabe patent does not disclose having the first auxiliary electrode from the first electrode set connected to the second auxiliary electrode from a second electrode set. The Examiner further stated that the Maley patent discloses a first working electrode and a second working electrode which share a counter electrode.

25 The Maley patent discloses a reference electrode, a counter electrode (which is analogous to an auxiliary electrode), a working electrode, and an interference correcting electrode formed in a manner similar to a working electrode. The Examiner concluded that it would have been obvious to one with ordinary skill in the art at the time of the invention to have one of the first working electrodes of the first electrode set or the second working electrode of the second electrode set be an actual working electrode and the other working electrode be an interference correcting electrode as taught by the Maley patent.

30 However, the Applicant respectfully points out the distinction between a working electrode and an auxiliary electrode, which is key to the present invention. An auxiliary electrode is an electrode used in an electrochemical cell for voltammetric analysis or other reactions in which an electrical current is expected to flow. In contrast, a working
35 electrode is the electrode where the cell reaction takes place. Furthermore, the auxiliary

5 electrode is used to ensure that current does not run through the reference electrode,
which would disturb the reference electrode's potential
(http://en.wikipedia.org/wiki/Auxiliary_electrode). Therefore, the sensor described in the
Maley patent is fundamentally different from the present invention and does not teach the
first auxiliary electrode from the first electrode set is connected with a second auxiliary
10 electrode from a second electrode set.

Thus, none of the references, either alone or combined, teach each of the claimed
elements of cancelled Claims 10 and 19. Therefore, the Applicant respectfully requests
that the Examiner withdraw the rejection of Claims 10 and 19 under 35 U.S.C. §103 and
15 provide for timely allowance of all pending claims.

**F. Claims 11, 12, 20, and 28 were rejected under 35 U.S.C. 103(a) as being
unpatentable over the Nagata patent in view of the Weetall patent, the Liu
patent, the Watanabe patent, and the Maley patent as applied to Claim 10,
20 and further in view of the Mansouri patent.**

Claims 11 and 20

The Examiner rejected Claims 11 and 20 as being unpatentable over the Nagata patent in
view of the Weetall patent, the Liu patent, the Watanabe patent, the Maley patent, and the
25 Mansouri patent. The Applicants respectfully point out that establishing a *prima facie*
case of obviousness requires: (A) determining the scope and contents of the prior art; (B)
ascertaining the differences between the prior art and the claims in issue; (C) resolving
the level of ordinary skill in the pertinent art; and (D) evaluating evidence of secondary
considerations. *See Graham v. John Deere*, 383 U.S. 1, 148 USPQ 459 (1966). Proper
30 analysis of obviousness is whether the claimed invention would have been obvious to one
of ordinary skill in the art after consideration of all the facts. 35 U.S.C. 103(a).

Recently, the Supreme Court stated that “[R]ejections on obviousness cannot be sustained
by mere conclusory statements; instead, there must be some articulated reasoning with
some rational underpinning to support the legal conclusion of obviousness.” *See KSR*

- 5 *Intern. Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (2007) quoting *In re Kahn*, 441 F. 3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006).

The rationale to support a conclusion that the claim would have been obvious is that “a person of ordinary skill in the art would have been motivated to combine the prior art to
10 achieve the claimed invention and that there would have been a reasonable expectation of success.” *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F. 3d 1356, 1360, 80 USPQ2d 1641, 1645 (Fed. Cir. 2006).

15 Additionally, in order to establish a *prima facie* case of obviousness of a claimed invention, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

The Applicant respectfully directs the Examiner to Claims 11 and 20 which have been cancelled. However, the limitations of Claims 11 and 20 have been incorporated into the
20 currently amended Claim 1, as the Applicant believes that the Examiner has misinterpreted the cited prior art. Specifically, the Applicant believes the limitation, “the first and second auxiliary electrodes are connected with a common ground” has been misinterpreted as being taught by the Mansouri patent.

25 The Examiner stated that the Nagata patent as modified by the Weetall patent, the Liu patent, the Watanabe patent, and the Maley patent does not mention having the first and second auxiliary electrodes connected with a common ground. The Examiner further stated that the Mansouri patent discloses an electrode set comprising a plurality of working electrodes, a reference electrode, and a counter electrode (analogous to an
30 auxiliary electrode), the counter electrode being grounded. While the Mansouri patent teaches a counter electrode which is grounded, it does not disclose first and second auxiliary electrodes which are connected with a common ground.

Thus, none of the references, either alone or combined, teach each of the claimed
35 elements of cancelled Claims 11 and 20. Therefore, the Applicant respectfully requests

- 5 that the Examiner withdraw the rejection of Claims 11 and 20 under 35 U.S.C. §103 and provide for timely allowance of all pending claims.

Claims 12 and 28

- Regarding Claims 12 and 28, the Applicant directs the Examiner to the currently
10 amended independent Claim 1. As noted above, the Applicant believes that Claim 1, as amended, is in allowable condition. Since Claims 12 and 28 depend from Claim 1, they incorporate all of the limitations of their respective independent claim, Claim 1, and therefore, Claims 12 and 28 are patentable for at least the same reasons given with respect to their respective independent claims. Thus, the Applicant respectfully requests
15 that the Examiner withdraw the rejection of Claims 12 and 28 under 35 U.S.C. §103 and provide for timely allowance of the pending claims.

- G. Claims 13-17 and 29-33 were rejected under 35 U.S.C. 103(a) as being unpatentable over the Nagata patent in view of the Weetall patent, the Liu
20 patent, the Watanabe patent, the Maley patent, and the Mansouri patent as applied to Claims 11, 12, 20, and 28, and further in view of the Leader patent, the Zelin patent, the Furusawa reference, and the Miyashita reference.**

25 Claims 13-17 and 29-33

- Regarding Claims 13-17 and 29-33, the Applicant directs the Examiner to the currently amended independent Claim 1. As noted above, the Applicant believes that Claim 1, as amended, is in allowable condition. Since Claims 13-17 and 29-33 depend from Claim 1, they incorporate all of the limitations of their respective independent claim, Claim 1, and
30 therefore, Claims 13-17 and 29-33 are patentable for at least the same reasons given with respect to their respective independent claims. Thus, the Applicant respectfully requests that the Examiner withdraw the rejection of Claims 13-17 and 29-33 under 35 U.S.C. §103 and provide for timely allowance of the pending claims.

- 5 **H. Claims 18 and 34 were rejected under 35 U.S.C. 103(a) as being
unpatentable over the Nagata patent in view of the Weehall patent, the Liu
patent, the Watanabe patent, the Maley patent, the Mansouri patent, the
Leader patent, the Zelin patent, the Furusawa reference, and the Miyashita
reference as applied to Claim 17, and further in view of the Moussy patent.**

10

Claims 18 and 34

Regarding Claims 18 and 34, the Applicant directs the Examiner to the currently
amended independent Claim 1. As noted above, the Applicant believes that Claim 1, as
amended, is in allowable condition. Since Claims 18 and 34 depend from Claim 1, they
15 incorporate all of the limitations of their respective independent claim, Claim 1, and
therefore, Claims 18 and 34 are patentable for at least the same reasons given with
respect to their respective independent claims. Thus, the Applicant respectfully requests
that the Examiner withdraw the rejection of Claims 18 and 34 under 35 U.S.C. §103 and
provide for timely allowance of the pending claims.

20

- I. Claims 2, 3, and 21 were rejected under 35 U.S.C. 103(a) as being
unpatentable over the Matson patent.**

Claims 2, 3, and 21

25 Regarding Claims 2, 3, and 21, the Applicant directs the Examiner to the currently
amended independent Claim 1. As noted above, the Applicant believes that Claim 1, as
amended, is in allowable condition. Since Claims 2, 3, and 21 depend from Claim 1, they
incorporate all of the limitations of their respective independent claim, Claim 1, and
therefore, Claims 2, 3, and 21 are patentable for at least the same reasons given with
30 respect to their respective independent claims. Thus, the Applicant respectfully requests
that the Examiner withdraw the rejection of Claims 2, 3, and 21 under 35 U.S.C. §103
and provide for timely allowance of the pending claims.

- 5 **J. Claims 4-6 and 22-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over the Matson patent as applied to Claims 2, 3, and 21, and further in view of the Liu patent, and the Watanabe patent.**

Claims 4-6 and 22-24

- 10 Regarding Claims 4-6 and 22-24, the Applicant directs the Examiner to the currently amended independent Claim 1. As noted above, the Applicant believes that Claim 1, as amended, is in allowable condition. Since Claims 4-6 and 22-24 depend from Claim 1, they incorporate all of the limitations of their respective independent claim, Claim 1, and therefore, Claims 4-6 and 22-24 are patentable for at least the same reasons given with
15 respect to their respective independent claims. Thus, the Applicant respectfully requests that the Examiner withdraw the rejection of Claims 4-6 and 22-24 under 35 U.S.C. §103 and provide for timely allowance of the pending claims.

Claim Rejections under 35 U.S.C. §112

- 20 **K. Claims 1-34 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite.**

- The Examiner rejected Claims 1-34 under 35 U.S.C. 112, second paragraph, as being
25 indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner questioned whether the “a nonconductive platform” in line 5 of Claim 1 is the same as the “the nonconductive platform” in line 3 of Claim 1. The Applicant respectfully directs the Examiner to Claim 1 which has been amended for clarification. Therefore, the Applicant respectfully
30 requests that the Examiner withdraw the rejection of Claims 1-34 under 35 U.S.C. 112 and provide for timely allowance of all pending claims.

5

CONCLUSION

The Applicant respectfully submits that in light of the above amendment/remarks, all claims are now in allowable condition. The Applicant thus respectfully requests timely allowance of all of the pending claims.

- 10 Any claim amendments that are not specifically discussed in the above remarks are not made for patentability purposes, and it is believed that the claims would satisfy the statutory requirements for patentability without the entry of such amendments. Rather, these amendments have only been made to increase claim readability, to improve grammar, and to reduce the time and effort required of those skilled in the art to clearly
- 15 understand the scope of the claim language. Furthermore, any new claims presented above are of course intended to avoid the prior art, but are not intended as replacements or substitutes of any cancelled claims. They are simply additional specific statements of inventive concepts described in the application as originally filed.
- 20 Further, it should be noted that amendment(s) to any claim is intended to comply with the requirements of the Office Action in order to elicit an early allowance, and is not intended to prejudice Applicant's rights or in any way to create an estoppel preventing Applicant from arguing allowability of the originally filed claim in further off-spring applications.
- 25 In the event the Examiner wishes to discuss any aspect of this response, or believes that a conversation with either Applicants or Applicants' representative would be beneficial, the Examiner is encouraged to contact the undersigned at the telephone number indicated below.
- 30 The Commissioner is authorized to charge any additional fees that may be required or credit overpayment to the attached credit card form. In particular, if this response is not timely filed, the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of

- 5 the number of months necessary to make this response timely filed. The petition fee due in connection therewith may be charged to deposit account no. 50-2691 if a credit card form has not been included with this correspondence, or if the credit card could not be charged.

10

Respectfully submitted,



15

Cary Tope-McKay
Registration No. 41,350
Tel.: (310) 589-8158